



DANZIGER

PERENNIALS

Technical Product Pages

2026-2027



CELESTIA™

Agastache foeniculum



- First-year flowering with no vernalization or bulking required
- Sturdy habit covered with fragrant blooms and foliage
- Good rooting performance
- Fast to finish
- Continuous flowering all season long



Spring



27 in
70 cm



21 in
55 cm



Upright
Vigorous



15-18
Qt, Gal



Landscape

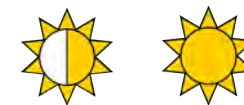


7-10



Pollinator
friendly





Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Suggested	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 18° - 20° C (65° - 68° F)		Weeks 3-4 100 ppm N	Day of sticking & Week 2



- **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible. Avoid saturated soil conditions during propagation.



- Daminozide spray application @ 1500 ppm week 4 may be required to control stretch in liner stage. Once rooted, allow soil to dry slightly between irrigations.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 / 6.3	0.80	21° / 22° C (70°-72° F)	50 ppm N in mist			Day of sticking	
Week 2	5.6 / 6.3	.80 to .90	21 / 22 C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.6 / 6.3	.90 to 1.0	Cool to 18° - 20° C (65° - 68° F)	Feed 100 ppm to 150 ppm				
Week 4	5.6 / 6.3	1.0 to 1.2	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm		Daminozide as needed		Pinch at transplant



- High quality plants are finished with high light and cool temperatures
- May require two pinches, depending on production schedule and container size

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 10 wks	Average Day	Pinch –Suggested day of transplant	150 - 200 ppm N	Daminozide spray application @ 2000 – 2500 ppm
15 cm (1 gallon) 1 ppp	(16° to 18° C)			
10 to 12 wks			Soil EC 1.0 - 1.2 pH 5.6 to 6.5	
20 cm (2 gallon) 1 ppp				



- PGR - Spray Daminozide at 2000 to 2500 ppm on finished plants early in crop schedule / Maintain good airflow and allow plants to dry before nightfall. Do not keep consistently wet or root rot problems may develop. The first signal of damp conditions would be yellowing of foliage and weak growth
- Scout for Aphids, Mites and Whitefly
- Drench after transplant for Pythium / Phytophthora and Rhizoctonia

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTROBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.5 to 6.3	1.0 to 1.2	16° to 18° C	feed 150 to 200 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Rhizoctonia
Week 6 to 12	5.5 to 6.3	1.0 to 1.2	16° to 18° C	feed 150 to 200 ppm				

'PEACH PEARL' PPAF

'PINK PEARL' PPAF

'PRINCE'S PLUME' PPAF

'PARADE OF PARROTS' PPAF

Agastache hybrida



- First year flowering, no vernalization or bulking required
- Early and uniform bloom
- Re-blooms for color all summer long
- Strong radial branching



Upright



45-50 cm
18-20 in



50-55 cm
20-22 in



Zone
6-10



15-18
Gal+



Landscape

TERRA NOVA
NURSERIES, INC.



Pink pearl

'PEACH PEARL' PPAF, 'PINK PEARL' PPAF, 'PRINCE'S PLUME' PPAF 'PARADE OF PARROTS' PPAF

1st
YEAR
Flowering



Peach Pearl *PPAF*



Prince's Plume *PPAF*



Pink Pearl *PPAF*



Parade of parrots *PPAF*

TERRA NOVA
NURSERIES, INC.

DANZIGER

PEACH PEARL, PINK PEARL, PRINCE’S PLUME & PARADE OF PARROTS

Agastache Hybrida

For additional information and availability:

[PEACH PEARL](#)

[PINK PEARL](#)

[PRINCE'S PLUME](#)

[PARADE OF PARROTS](#)

Stick on priority – Number 2 out of 4 categories



Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 70°-72° F (21° - 22°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 65° - 68° (18° - 20° C)		Weeks 3-4 100 to 125 ppm	Day of sticking & Week 2



– **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible. Avoid saturated soil conditions.



Daminozide spray application @ 1500 ppm week 4 may be required to control stretch in liner stage. Once rooted, allow soil to dry slightly between irrigations

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6/6.2	0.80	70°/72°F (21°/22°C)	50 ppm N in mist	Optional		Day of sticking	
Week 2	5.6 to 6.2	.80 to .90	70°/72°F (21°/22°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.6 to 6.2	.90 to 1.0	Cool to 68°/70°F (20°/21°C)	Feed 100 ppm N				
Week 4	5.6 to 6.2	.90 to 1.0	68° to 70°F (20° to 21°C)	Feed 100 ppm N				
Week 5	5.6 to 6.2	.90 to 1.0	68° to 70°F (20° to 21°C)	Feed 100 ppm N		Optional		

PEACH PEARL, PINK PEARL, PRINCE'S PLUME & PARADE OF PARROTS

Agastache Hybrida

For additional information and availability:

[PEACH PEARL](#)

[PINK PEARL](#)

[PRINCE'S PLUME](#)

[PARADE OF PARROTS](#)

- High quality plants are finished with high light and cool temperatures
- Pinch at transplant
- Allow some growth under short days to ‘bulk plants before initiation

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 10 wks	Average Day	Pinch required/ long day flowering response	100 - 150 ppm N	Daminozide spray at 2,000 to 2,500 ppm
15 cm (1 gallon)	(16°-18° C)		Soil EC 0.8 - 1.0 pH 5.6 to 6.5	
10 to 12 wks	1-2 plants per container			
20 cm (2 gallon)				

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID,DICHLORVOS
	Thrips	METHIOCARB,ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium	PROPAMOCARB / MEFENOXAM
	Phytophthora	
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB / Triflumizole

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.6 to 6.2	0.8 to 1.0	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm			Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 12	5.6 to 6.2	0.8 to 1.0	60° to 65° F (16° to 18° C)	feed 150 to 200 ppm		Daminozide spray at 2,000 to 2,500 ppm	Spray fungicide in finishing protocols	Control of Bacterial Leaf Blights



- Facultative Long Day Flowering Response – June through September
- Natural foliar disease tolerance
- Maintain good airflow and allow plants to dry between irrigations
- Drench after transplant for Rhizoctonia and Pythium / Phytophthora

SUNNY SPARKS™

Agastache aurantiace



- First-year flowering with no vernalization or bulking required
- Sturdy habit covered with fragrant blooms
- Fast to finish
- Pollinator friendly



Spring
Summer



20 in
50 cm



24 in
60 cm



Upright



12-18
Qt, Gal+



Landscape



6-11



Pollinator
Friendly



SUNNY SPARKS™ series

1st
YEAR
Flowering



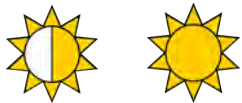
SUNNY SPARKS™ Coral



SUNNY SPARKS™ Punch



SUNNY SPARKS™ Pink Imp.



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Suggested	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 18° - 20° C (65° - 68° F)		Weeks 3-4 100 ppm N	Day of sticking & Week 2



- **Irrigation specification** – Spray with adjuvant the day of sticking. Remove from mist as soon as possible. Avoid saturated soil conditions.



- Daminozide spray application @ 1500 ppm week 4 may be required to control stretch in liner stage. Once rooted, allow soil to dry slightly between irrigations.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.5 / 6.3	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist			Day of sticking	
Week 2	5.5 to 6.3	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.5 to 6.3	.90 to 1.0	Cool to 18° - 20° C (65° - 68° F)	Feed 100 ppm to 150 ppm				
Week 4	5.5 to 6.3	1.0 to 1.2	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm		Daminozide as needed		Pinch at transplant

- High quality plants are finished with high light and cool temperatures
- May require two pinches, depending on production schedule and container size

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 10 wks	Average Day	Pinch –Suggested day of transplant	150 - 200 ppm N	Daminozide spray application @ 2000 – 2500 ppm
15 cm (1 gallon) 1 ppp	61° to 65° F (16° to 18° C)			
10 to 12 wks			Soil EC 1.0 - 1.2 pH 5.5 to 6.3	
20 cm (2 gallon) 1 ppp				



- PGR - Spray Daminozide at 2000 to 2500 ppm on finished plants early in crop schedule / Maintain good airflow and allow plants to dry before nightfall. Do not keep consistently wet or root rot problems may develop. The first signal of damp conditions would be yellowing of foliage and weak growth
- Scout for Aphids, Mites and Whitefly
- Drench after transplant for Pythium / Phytophthora and Rhizoctonia

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTROBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 5	5.5 to 6.3	1.0 to 1.2	61° to 65° F (16° to 18° C)	feed 150 to 200 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Rhizoctonia
Week 6 to 13	5.5 to 6.3	1.0 to 1.2	61° to 65° F (16° to 18° C)	feed 150 to 200 ppm				

PAVILION™

Caryopteris incana



- First-year flowering with no vernalization or bulking required
- Blooms from late summer to early fall
- Great novelty for fall program
- Gives a spot of color in the garden



Autumn



13-15 in
35-40 cm



18-20 in
45-50 cm



12-18
Qt, Gal



Landscape



5-9



PAVILION™ series

1st
YEAR
Flowering



PAVILION™ White



PAVILION™ Pink



PAVILION™ Blue



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Suggested	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 -4 18° - 20° C (65° - 68° F)		Weeks 3-4 100 to 150 ppm N	Day of sticking & Week 2



- **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible



- **Caryopteris incana** respond to short days for flowering. Stick roughly week 24 to 26 for finishing week 36. Daminozide at 1500 to 2500 ppm week 4 may be required to control stretch in liner stage.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.5 / 6.2	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist			Day of sticking	
Week 2	5.5 / 6.2	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist	Optional		Second fungicide app	
Week 3	5.5 / 6.2	.90 to 1.0	Cool to 18° - 20° C (65°- 68° F)	Feed 100 ppm to 150 ppm	Optional	Daminozide as needed		
Week 4	5.5 / 6.2	1.0 to 1.2	18° - 20° C (65°- 68° F)	Feed 100 to 150 ppm	Optional	Daminozide as needed		Pinch at transplant



- Pinching is required for branching and controlling height
- High quality plants will finish in all regions / hot and cool regions

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 8 wks	Average Day	Pinch – Suggested day of transplant	150 - 200 ppm N	Daminozide spray application @ 2000 – 2500 ppm
15 cm (1 gallon) 1 ppp	(20° to 21° C)			
7 to 9 wks			Soil EC 1.0 - 1.2 pH 5.5 to 6.2	
20 cm (2 gallon) 1 ppp				



- PGR - Spray Daminozide at 2000 to 2500 ppm on finished plants early in crop schedule
- Maintain good airflow and allow plants to dry before nightfall. Do not keep consistently wet or root rot problems may develop and will show as yellow green leaf color
- Scout for Aphids, Mites and Whiteflies
- Drench after transplant for Pythium / Phytophthora and Rhizoctonia.
- Optimal planting period – May-June for fall programs.

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTROBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.6 to 6.2	1.0 to 1.2	20° to 21° C	feed 150 to 200 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Rhizoctonia
Week 6 to 13	5.6 to 6.2	1.0 to 1.2	20° to 21° C	feed 150 to 200 ppm				

SOLANNA™

Coreopsis grandiflora



- First-year flowering with no vernalization or cooling required, however most varieties benefit from 14 days of cool temperature (10C or less)
- Well branched
- Prolonged flowering, spring to fall
- Self-cleaning



Pollinator
Friendly



13-15 in
35-40 cm



20-22 in
50-55 cm



12-18 cm
Gal+,
Patio Pot



Landscape



4-10

Variety Name	Flower Color	Flower Size	Flower Type	Tolerance to Day Length & High Temp.	Flowering Time [(From Planting)]	Growth Habit
Solanna™ Bright Touch	Dark Yellow & Red	Medium	Single	Medium-Low	Late spring	Mounded
Solanna™ Glow	Light Yellow	Medium	Single	Low	Late spring	Semi-Upright
Solanna™ Golden Crown	Yellow	Large	Single	Medium	Spring	Semi-Upright
Solanna™ Golden Sphere	Yellow	Large	Double	Low	Spring	Mounded
Solanna™ Sunset Bright	Yellow & Red	Medium	Single	High	Spring	Mounded
Solanna™ Sunset Burst	Light Red & Light Yellow	Large	Single	High	Late spring	Semi-Upright
Solanna™ Sunshine	Yellow	Extra Large	Semi-Double	Medium	Spring	Semi-Upright



SOLANNA™ series

1st
YEAR
Flowering



SOLANNA™ Sunset Bright



SOLANNA™ Bright Touch



SOLANNA™ Glow



SOLANNA™ Glow



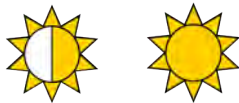
SOLANNA™ Golden Sphere



SOLANNA™ Sunset Burst



SOLANNA™ Sunshine



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 18° - 20° C (65° - 68° F)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2



- **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible
- Coreopsis respond to long days for flowering (obligate long day plant). The Solanna™ series flower response is late May / early June. Daminozide at 1000 to 1500 ppm week 4.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 / 6.2	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.6 to 6.2	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 18° - 20° C (65° - 68° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	.90 to 1.0	18° - 20° C (65°- 68° F)	Feed 100 to 150 ppm		Daminozide as needed		
Week 5	5.8 to 6.2	1.0 to 1.2	18° C (65° F)	Feed 100 to 150 ppm		Daminozide as needed		



Coreopsis grandiflora

- Pinching should not be required unless plants have elongated.
Pinching of SOLANNA™ Sunset Burst and SOLANNA™ Sunset Bright enhance good branching after pinching.
- Spray for Powdery Mildew and bacterial leaf spot during production
- High quality plants are finished with high light and cool temperatures

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 9 wks	Average Day	Pinch – optional see above	150 - 200 ppm N	Daminozide spray application @ 2500 – 3750 ppm Paclobutrazol 1 to 2 ppm drench
15 cm (1 gallon) 1 ppp	20° to 21° C (68°- 70° F)			
9 to 10 wks			Soil EC 1.0 - 1.2 pH 5.6 to 6.2	
20 cm (2 gallon) 1 ppp				

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.6 to 6.2	1.0 to 1.2	20° to 21° C (68° - 70° F)	feed 150 to 200 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Rhizoctonia
Week 6 to 13	5.6 to 6.2	1.0 to 1.2	20° to 21° C (68° - 70° F)	feed 150 to 200 ppm		Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size



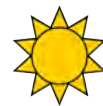
- PGR - Spray Daminozide at 2500 to 3750 ppm on finished plants early in crop schedule / Paclobutrazol drench application at 1 to 2 ppm for finishing if required to hold plants
- Maintain good airflow and allow plants to dry before nightfall. Spray for Powdery Mildew
- Scout for Aphids, Thrips and Whiteflies
- Drench after transplant for Rhizoctonia and Pythium / Phytophthora

COREOPSIS

Verticillate, grandiflora & hybrida

For additional information and availability:

[COREOPSIS](#)



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 18° - 20° C (65° - 68° F)		Weeks 3-5 100 ppm N	Day of sticking & Week 2



– **Irrigation specification** – Remove from mist as soon as root emerges



– Spray adjuvant the day of sticking. Moderate moisture for the rooting media.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.5	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Required 12 hours daylength		Day of sticking	
Week 2	5.8 to 6.5	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.5	.90 to 1.0	Cool to 20° - 21°C (68°-70° F)	Feed 100 ppm N				
Week 4	5.8 to 6.5	.90 to 1.0	20° - 21°C (68°-70° F)	Feed 100 ppm N				
Week 5	5.8 to 6.5	.90 to 1.0	18° - 20° C (65° - 68° F)	Feed 100 ppm N		Optional		

COREOPSIS

Verticillate, grandiflora & hybrida

For additional information and availability:

[COREOPSIS](#)



- Pinch required for quality finishing (pinch leaving 4 to 5 nodes)
- Daminozide spray application @ 2000 to 2500 ppm
- Cold beneficial (weeks of night temperatures below 55 F / 13 C)

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 10 wks	Average Day	Pinch required/ Obligate long day	150-200 ppm N	Daminozide spray application @ 2000 to 2500 ppm
15 cm (1 gallon) 1 ppp	18° - 20° C (65°- 68° F)			
8 to 10 wks			Soil EC 0.8 - 1.0 pH 5.8 to 6.5	
20 cm (2 gallon) 3 plants per container				

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.5	0.8 to 1.0	18° - 20° C (65° - 68° F)	feed 100 to 150 ppm			Drench fungicide after transplant	Control of Pythium & Rhizoctonia
Week 6 to 13	5.8 to 6.5	0.8 to 1.0	18° - 20° C (65° - 68° F)	feed 150 to 200 ppm			Spray fungicide in finishing protocols	Control of Bacterial Leaf Blights



- Long Day Flowering Response – June through October
- Natural foliar disease resistance
- Maintain good airflow and allow plants to dry between irrigations
- Drench after transplant for Rhizoctonia and Pythium / Phytophthora

DELIGHTFUL

Delosperma cooperi



- First year flowering, no vernalization or bulking required
- Full of flowers
- Heat and drought tolerance
- Low water consumption
- Mounded Compact habit
- Uniform series
- Great option for 12cm mix pot



Mounded



8-10 cm
4-6 in



21-25 cm
8-10 in



10-15 cm
Qt, Gal



Landscape



Heat
Tolerant



DELIGHTFUL™ Pink

The DELIGHTFUL™ Collection

1st
YEAR
Flowering



DELIGHTFUL™ White

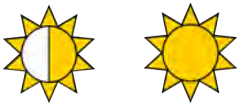


DELIGHTFUL™ Pink



DELIGHTFUL™ Yellow

Delosperma cooperi



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72°/74°F (22°/23°C)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 68° - 70° (20° - 21° C)		Weeks 3-4 100 to 150 ppm	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.5 to 6.5	0.80	72°/74°F (22°/23°C)	50 ppm N in mist			Day of sticking	
Week 2	5.5 to 6.5	.80 to .90	72°/74°F (22°/23°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.5 to 6.5	.90 to 1.0	Cool to 68°/70°F (20°/21°C)	Feed 100 ppm to 150 ppm		Daminozide as needed		Pinch week 3 or at transplant
Week 4	5.5 to 6.5	1.0 to 1.2	68° to 70°F (20° to 21°C)	Feed 100 ppm to 150 ppm		Daminozide as needed		



– **Irrigation specification** –As a succulent plant, it requires minimal water. Maintain a microclimate with high humidity while keeping the leaves as dry as possible. Remove from mist as soon as possible



Delosperma are day neutral and prefers bright light conditions for maximum flowering. Daminozide at 1500 to 2000 ppm week 3 if required.

Delosperma cooperi

- High quality plants and increased flowering are obtained with high light
- Cool temperatures may create stress and develop yellow stems (at tips)/when temperatures are warm, the plants will remain green
- Maintain soil on drier side

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 9 wks	Average Day	Pinch –Suggested week 3 or day of transplant	100 - 150 ppm N	Daminozide spray application @ 2000 – 3750 ppm
(12 cm) 5” pot 1 ppp	68° to 70° F (20° to 21° C)			
8 to 10 wks				
20 cm (2 gallon) 3 ppp			Soil EC 1.2 - 1.5 pH 5.5 to 6.3	



- PGR - Spray Daminozide at 2000 to 3750 ppm on finished plants early in crop schedule
- Maintain good airflow and allow plants to dry before nightfall.
- Scout for Aphids, Mites and Scale
- Drench after transplant for Rhizoctonia and Pythium / Phytophthora

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID,DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.5 to 6.3	1.0 to 1.2	68° to 70° F (20° to 21° C)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Rhizoctonia
Week 6 to 14	5.5 to 6.3	1.2 to 1.5	68° to 70° F (20° to 21° C)	feed 100 to 150 ppm				

EARLY BIRD™

Delosperma cooperi

1st
YEAR
Flowering

- First year Flowering, no vernalization or bulking required
- Heat and drought tolerance
- Low water consumption
- First to open in the morning
- Good flower coverage
- Early blooming



Semi
Trailing



10-15 cm



20-25 cm



10-13 Qt,
Gal+



Spring



Landscape



4-9



SANDGEM™

Delosperma cooperi

1st
YEAR
Flowering

- First year Flowering, no vernalization or bulking required
- Large bright flowers on a tight habit
- Great for landscape use and combinations
- Works well in drought/heat tolerant programs



Semi
Trailing



10-13 cm
4-5 in



30-41 cm
12-16 in



15-24
Qt, Gal+



Hanging
Basket



Ground
cover



Landscape



4-9



Spring /
Summer
Flowering



SANDGEM™ Gold

DANZIGER

The SANDGEM™ series

1st
YEAR
Flowering



Sandgem™ Ember Improved



Sandgem™ Purple



Sandgem™ Yellow

SPLENDID™

Delosperma cooperi

- Very large bright flowers with white center
- Low water requirements
- Heat tolerance



10-13 cm



36-46 cm



4-9



Landscape



1st
YEAR
Flowering

EARLY BIRD™, SANDGEM™ & SPLENDID™

Delosperma cooperi

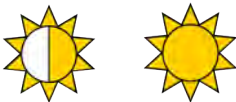
For additional information and availability:

[EARLY BIRD™](#)

[SANDGEM™](#)

[SPLENDID™](#)

Stick on priority – Number 2 out of 4 categories



Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 22° - 23°C (72°-74° F)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 20° - 21° C (68° - 70° F)		Weeks 3-4 100 to 150 ppm N	Day of sticking & Week 2



- **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible. As a succulent plant, it requires minimal water. Maintain a microclimate with high humidity while keeping the leaves as dry as possible.



- Delosperma are day neutral and prefers bright light conditions for maximum flowering. Daminozide at 1500 to 2000 ppm week 3 if required. Pinch in liner tray week 3 to increase branching.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.5 to 6.5	0.80	22° - 23°C (72°-74° F)	50 ppm N in mist			Day of sticking	
Week 2	5.5 to 6.5	.80 to .90	22° - 23°C (72°-74° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.5 to 6.5	.90 to 1.0	Cool to 20° - 21° C (68° - 70° F)	Feed 100 ppm to 150 ppm				Pinch week 3 or at transplant
Week 4	5.5 to 6.5	1.0 to 1.2	20° - 21° C (68° - 70° F)	Feed 100 to 150 ppm		Daminozide as needed		

EARLY BIRD™, SANDGEM™ & SPLENDID™

Delosperma cooperi

For additional information and availability:

[EARLY BIRD™](#)

[SANDGEM™](#)

[SPLENDID™](#)

- High quality plants and increased flowering are obtained with high light
- Cool temperatures may create stress and develop yellow stems (at tips)/when temperatures are warm, the plants will remain green
- Maintain soil on drier side

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 9 wks	Average Day	Pinch –Suggested week 3 or day of transplant	100 - 150 ppm N	Daminozide spray application @ 2000 – 3750 ppm
15 cm (1 gallon) 1 ppp	20° - 21° C (68° - 70° F)			
9 to 11 wks			Soil EC 1.2- 1.5 pH 5.5 to 6.3	
20 cm (2 gallon) 1 ppp				
8 to 10 wks				
20 cm (2 gallon) 3 ppp				



- Cool temperatures may create yellowing at the end of plant stems
- Maintain good airflow and allow plants to dry before nightfall.
- Scout for Aphids, Mites and Scale
- Drench after transplant for Rhizoctonia and Pythium / Phytophthora

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.5 to 6.3	1.0 to 1.2	20° - 21° C (68° - 70° F)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Rhizoctonia
Week 6 to 14	5.5 to 6.3	1.2 to 1.5	20° - 21° C (68° - 70° F)	feed 100 to 150 ppm				

DELILAH™

Dianthus plumarius



- First-year flowering with no vernalization or bulking required
- A series of hardy dianthus with semi-double vibrant flowers
- Blooms spring to early fall
- Compact and easy to grow
- No pinching or PGRs required



Spring



25 cm
10 in



35 cm
14 in



12-15
Qt, Gal



Landscape



4-9



The DELILAH™ series

NEW
27



DELILAH™ Shiraz Velvet
DTP-22-8747



DELILAH™ Bicolor Magenta



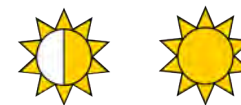
DELILAH™ Bicolor Purple



DELILAH™ Magenta



DELILAH™ Purple



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 20° - 21° C (68° - 70° F)		Weeks 3-4 100 to 125 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.5 to 6.3	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Day neutral		Day of sticking	
Week 2	5.5 to 6.3	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.5 to 6.3	.80 to 1.0	Cool to 20° - 21° C (68° - 70° F)	Feed 100 to 125 ppm				
Week 4	5.5 to 6.3	.80 to 1.0	20° - 21° C (68° - 70° F)	feed 100 to 125 ppm		Daminozide as needed		Pinch Optional



- **Irrigation specification** – Spray with adjuvant the day of sticking - Remove from mist as soon as possible



- KIBA rooting hormone spray applications will hasten and improve uniformity of rooting. Daminozide at 1500 to 2000 ppm week 3 if required in warm greenhouse conditions.
- Pinch –Should not be required unless liners are elongated.

*Dianthus plumarius*

- Plants are best finished with high light intensity
- Cool temperature finishing will create the best quality.

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 10 wks	Average Day	Pinch –Should not be required unless liners are elongated	100 - 150 ppm N	Daminozide spray application @ 2000 – 2500 ppm
15 cm (1 gallon) 1 ppp	59° to 64°F (15° to 18°C			
9 to 11 wks	Larger containers 3 ppp		Soil EC 1.0 - 1.2 pH 5.5 to 6.3	
20 cm (2 gallon)				

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.5 to 6.3	1.0 to 1.2	64°F 18°C	feed 100 to 150 ppm			Drench fungicide after transplant	Control of Pythium & Rhizoctonia
Week 6 to 12	5.5 to 6.3	1.0 to 1.2	59° to 64°F (15° to 18°C)	feed 100 to 150 ppm		Daminozide as needed		

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB



- PGR - Spray Daminozide at 2000 to 2500 ppm on finished plants early in crop schedule if required
- Cool temperatures will finish highest quality plants
- Scout for Aphids, Mites and Thrips
- Drench after transplant for Rhizoctonia and Pythium / Phytophthora

GUATEMALA™

Echinacea



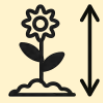
- First year Flowering, no vernalization or bulking required
- The 2nd URC Echinacea in the market (1st is the Danziger Panama™ Red)
- Early blooming - weeks 22 to 24
- Everlasting flower power
- Great hardiness
- Suitable for fall programs



Upright/
compact



18cm
7in



26cm
10in



Heat
Tolerant



Landscape



cm 10-18
+Gal



Zone
4-9



GUATEMALA™ Gold



The GUATEMALA™ Series

1st
YEAR
Flowering



Guatemala™ Papaya



Guatemala™ Gold

PANAMA™

Echinacea



- First year Flowering, no vernalization or bulking required
- The 1st URC Echinacea in the market, Early blooming weeks 22 to 24
- Everlasting flower power
- Great hardiness
- Suitable for fall programs



Upright/
compact



20cm
8in



30cm
12in



Heat
Tolerant



Landscape



cm 10-18
+Gal



Zone
4-9



PANAMA™ Red

The PANAMA™ Series

1st
YEAR
Flowering

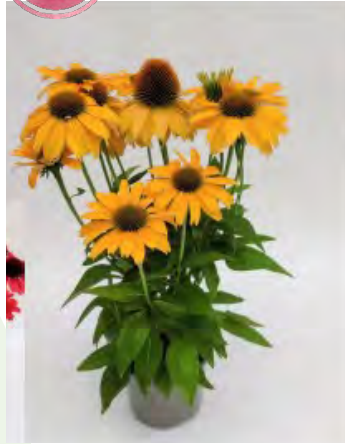
NEW
27



PANAMA™ Neon Pink

ECH-Z-79

NEW
27



PANAMA™ Yellow

ECH-Z-80



PANAMA™ Rose



PANAMA™ Red

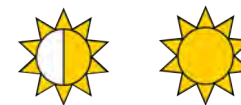
GUATEMALA™ & PANAMA™

Echinacea hybrid

For additional information and availability:

[GUATEMALA™](#)

[PANAMA™](#)



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 18° - 20° C (65° - 68° F)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2



- **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible



- K-IBA spray application will hasten and even rooting response. Echinacea Panama™ are long day flowering with the natural flowering response being June (facultative long day plant).
- 12-14 hour daylength and warm temperatures are required during propagation

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 / 6.0	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Required 12 hr daylength		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 18° - 20° C (65° - 68° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	.90 to 1.0	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm				
Week 5	5.8 to 6.2	.90 to 1.0	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm		Daminozide as needed		1500 to 2000 ppm Daminozide

Echinacea hybrid

- No pinch should be needed
- Spray for bacterial leaf blights

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
10 to 12 wks	Average Day	Pinch is not required- only to cut the flower buds from the top (but not the whole stem). Extend daylength to 12 hours for early flowering	100 - 150 ppm N	Daminozide spray application @ 2000 – 2500 ppm
15 cm (1 gallon) 1 ppp	(20°C)			
10 to 12 wks	3 plants per container		Soil EC 0.8 - 1.2 pH 5.8 to 6.2	
19 cm (2 gallon) 1 ppp				



- Long Day Flowering Response Natural flowering time is weeks 22 – 24
- Maintain warm temperatures during finishing at 20° C (68° F) average daily temperature to allow continued growth and progression of new leaves
- PGR - Spray Daminozide at 2000 to 2500 ppm if needed
- Maintain good airflow and allow plants to dry before nightfall/spray for bacterial leaf blights
- Drench after transplant for Rhizoctonia and Pythium / Phytophthora

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.2	0.8 to 1.0	20° - 21°C (68°-70° F)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 13	5.8 to 6.2	0.8 to 1.2	20° - 21°C (68°-70° F)	feed 100 to 150 ppm			Spray fungicide in finishing protocols	Control of Bacterial Leaf Blights

SUNSTRONG™

Erysimum hybrida

1st
YEAR
Flowering

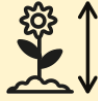
- First year Flowering, no vernalization or bulking required
- No cooling needed
- Heat and humidity tolerant
- A large garden plant that consumers will enjoy in their landscape
- Will flower through the season
- Suitable for small pots programs
- Have a nice delicate scent



Upright



38-45 cm
15-18 in



45-60 cm
18-24 in



Zone
6-10



Landscape



10-18
Gal+



SUNSTRONG™ Orange Imp. +
Violet

DANZIGER

The SUNSTRONG™ series

1st
YEAR
Flowering



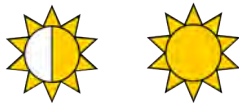
SUNSTRONG™ Yellow



SUNSTRONG™ Orange Imp.



SUNSTRONG™ Violet



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Optional - (0.4% IBA)	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 18° - 20° C (65° - 68° F)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2

- 
 - **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible
- 
 - Erysimum is day neutral. The SunStrong™ series will flower early enough for most regions. Daminozide at 1500 to 2500 ppm week 4. Pinch week 4 or at transplant.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.0	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.6 to 6.0	.80 to .90	Cool to 18° - 20° C (65° - 68° F)	Feed 100 ppm to 150 ppm				
Week 4	5.6 to 6.0	.80 to .90	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm		Daminozide as needed		Pinch recommended
Week 5	5.6 to 6.0	.80 to .90	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm		Daminozide as needed		



- A second pinch will shape plants and promote more uniform flower response
- Allow soil to dry between irrigations

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 10 wks	Average Day	Pinch – Suggested week 4 or day of transplant	100 - 150 ppm N	Daminozide spray application @ 2000 – 3750 ppm Paclobutrazol 1 to 2 ppm drench
15 cm (1 gallon) 1 ppp	(16°C / 60°F)		Soil EC 0.8 - 1.2 pH 5.8 to 6.2	
9 to 11 wks	3 plants per container for 20 cm or larger			
20 cm (2 gallon) 3 ppp				

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.8 to 6.2	.08 to 1.0	18° - 20° C (65° - 68° F)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 12	5.8 to 6.2	1.0 to 1.4	10° to 16° C (50° - 60° F)	feed 100 to 150 ppm		Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size



- **PGR** - Spray Daminozide at 2000 to 3750 ppm on finished plants early in crop schedule / Paclobutrazol drench application at 1 to 2 ppm for finishing if required
- Maintain good airflow and allow plants to dry before nightfall
- **Scout** for Aphids, Mites and Thrips
- **Drench** after transplant for Botrytis and Pythium / Phytophthora

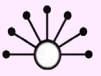
Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTROBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

GUSTO™

Gaillardia hybrida

1st
YEAR
Flowering

- First-year flowering with no bulking or vernalization requirements
- Easy to grow, uniform series
- Tested for easy rooting
- New blooms cover the old ones



Mounded



5-8 in
10-13 cm



12-14 in
30-36 cm



Heat
Tolerant



12-18
Qt, Gal+



Landscape



4-9



Pollinator
friendly



The GUSTO™ series

1st
YEAR
Flowering



GUSTO™ Swift Saffron
GI-22-6379



Gusto™ Orange Zest



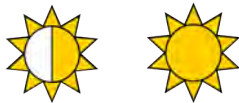
Gusto™ Lemon



Gusto™ Paprika



Gusto™ Sweet Chili



Stick on priority – Number 2 out of 4 categories

PROPAGATION TIPS

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 18°- 21° C (65°- 70° F)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2



- **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible.
 - Over wet soil will delay rooting and non-uniform callusing.
-
- Gaillardia respond to long days for flowering (obligate long day plant). The Gusto™ series will flower early enough for most regions. Daminozide at 1000 to 1500 ppm week 3.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.0	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 20° - 21°C (68°-70° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	.90 to 1.0	20° - 21°C (68°-70° F)	Feed 100 to 150 ppm		Daminozide as needed		
Week 5	5.8 to 6.2	1.0 to 1.2	18° C (65° F)	Feed 100 to 150 ppm		Daminozide as needed		



- Low fertility will reduce plant size and hasten flowering
- Allow soil to dry between irrigations

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 9 wks	Average Day	Pinch –Suggested day of transplant	100 - 150 ppm N	Daminozide spray application @ 2000 – 3750 ppm Paclobutrazol 1 to 2 ppm drench
15 cm (1 gallon) 1 ppp	20° - 21°C (68°-70° F)			
9 to 10 wks				
20 cm (2 gallon) 1 ppp				
7 to 9 wks				
20 cm (2 gallon) 3 ppp				



- PGR - Spray Daminozide at 2000 to 3750 ppm on finished plants early in crop schedule / Paclobutrazol drench application at 1 to 2 ppm for finishing if required
- Maintain good airflow and allow plants to dry before nightfall
- Scout for Aphids, Mites and Thrips
- Drench after transplant for Botrytis and Pythium / Phytophthora

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.2	1.0 to 1.2	20° - 21°C (68°-70° F)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 13	5.8 to 6.2	1.0 to 1.2	20° - 21°C (68°-70° F)	feed 100 to 150 ppm		Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

STEFFI™

Gaura

- First-year flowering with no bulking or vernalization requirements
- Medium habit
- Compact flower stems on dense compact foliage



Upright



50 cm
20 in



44 cm
18 in



Heat
Tolerant



Zone
5-9



Landscape



12-18
Gal+, Qt



STEFFI™ Dark Rose

The **STEFFI™** series



STEFFI™ Blush Pink Imp.



STEFFI™ Dark Rose Imp.



STEFFI™ White



Gaura lindheimeri



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Suggested	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 18° - 20° C (65° - 68° F)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2



– **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible.



- Best to root in high humidity and reduced mist limiting the amount of moisture in soil.
- Gaura are facultative long day plants/flowering is hastened under long days. Daminozide at 1500 to 2500 ppm week 4. Pinch at transplant leaving 5 to 6 nodes below pinch.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.0	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.80 to .90	Cool to 20° - 21°C (68°-70° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	.80 to .90	20° - 21°C (68°-70° F)	Feed 100 to 150 ppm		Daminozide as needed		
Week 5	5.8 to 6.2	.80 to .90	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm		Daminozide as needed		Pinch recommended

Gaura lindheimeri

- Maintain soil evenly moist
- High light levels best for finishing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 10 wks	Average Day	Pinch –Suggested day of transplant	100 - 150 ppm N	Daminozide spray application @ 2000 – 3750 ppm
15 cm (1 gallon) 1 ppp	(18°C/65°F)			
9 to 11 wks			Soil EC 0.8 - 1.0	
20 cm (2 gallon) 1 ppp			pH 5.8 to 6.2	
8 to 10 wks				
20 cm (2 gallon) 3 ppp				



- PGR - Spray Daminozide at 2000 to 3750 ppm on finished plants early in crop schedule
- Maintain good airflow and allow plants to dry before nightfall
- Scout for Aphids, Leafminors, Mites and Thrips
- Drench after transplant for Botrytis and Pythium / Phytophthora

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.2	0.8 to 1.0	18° - 20° C (65° - 68° F)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 14	5.8 to 6.2	0.8 to 1.0	16° to 18° C (61° - 65° F)	feed 100 to 150 ppm				

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID,DICHLORVOS
	Thrips	METHIOCARB,ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

Festival™

Gypsophila paniculata

1st
YEAR
Flowering

- First-year flowering with no bulking or vernalization requirements
- Great summer performer
- Drought and heat tolerant
- Can be easily cut and put in a vase inside the house

			
Late Spring	20 in 50 cm	12 in 30 cm	Upright
			
12-15	Landscape	Hanging basket	4-8



FESTIVAL™ series

1st
YEAR
Flowering



FESTIVAL™ PINK LADY



FESTIVAL™ WHITE



FESTIVAL™ WHITE FLARE



Stick on priority – Number 2 out of 4 categories

PROPAGATION TIPS

Average Time	Temperature	Hormone	Fertilization	Fungicide
6 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Suggested	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 20° - 21° C (68° - 70° F)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2



- **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible
- Gypsophila prefer humidity from tenting vs misting foliage and soil. Rooting hormone and dry soil conditions are more conducive to uniform rooting.
- A basal KIBA application of 200 to 800 ppm is recommended. Overhead application will result in leaf curling and disease issues



Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.5	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.8 to 6.5	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.5	.90 to 1.0	Cool to 20° - 21° C (68° - 70° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.5	.90 to 1.0	20° - 21° C (68° - 70° F)	Feed 100 to 150 ppm				
Week 5	5.8 to 6.5	1.0 to 1.2	20° - 21° C (68° - 70° F)	Feed 100 to 150 ppm		Daminozide as needed		
Week 6	5.8 to 6.5	1.0 to 1.2	20° - 21° C (68° - 70° F)	Feed 100 ppm to 150 ppm		Daminozide as needed		

*Gypsophila paniculata*

- Festival Gypsophila will require daylength longer than 12/13 hours to flower
- Allow soil to dry between irrigations
- Best when grown under high light with cool temperatures

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
9 to 12 wks	Average Day	Pinch –Suggested day of transplant with possible second pinch	150 - 200 ppm N	Daminozide spray application @ 2000 – 3750 ppm Paclobutrazol 1 to 2 ppm drench
15 cm (1 gallon) 1 ppp	16° to 18°C (61° - 65° F)		Soil EC 1.2 - 1.5 pH 5.8 to 6.5	
9 to 12 wks				
20 cm (2 gallon) 1 ppp				

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.8 to 6.5	1.0 to 1.2	16° to 18°C (61° - 65° F)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 13	5.8 to 6.5	1.2 to 1.5	16° to 18°C (61° - 65° F)	feed 150 to 200 ppm		Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTROBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB



- PGR - Spray Daminozide at 2000 to 3750 ppm on finished plants early in crop schedule / Paclobutrazol drench application at 1 to 2 ppm for finishing if required
- Pinch leaving 4 to 6 nodes on stem
- Scout for Caterpillar, Mites and Thrips
- Drench after transplant for Botrytis and Pythium / Phytophthora
- Avoid oil based insecticides such as Neem

ENDLESSLILY™

Hemerocallis

- First year flowering with no bulking or vernalization requirements
- Ever blooming
- Heat tolerance
- Resilient perennial that returns and flowers every year
- Performs well in landscape and great for patio pots

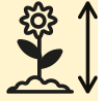
1st
YEAR
Flowering



Mounded



40 cm
16 in



40 cm
16 in



Zone
4-9



Landscape



12-18
Gal+



ENDLESSLILY™ Yellow & Orange

The ENDLESSLILY™ series

1st
YEAR
Flowering



.ENDLESSLILY™ Coral Imp



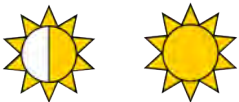
ENDLESSLILY™ Orange



ENDLESSLILY™ Yellow

Hemerocallis hybrid

- Transplant into finish pot upon receipt of product
- Keep night temperatures above 62° F (17° C). Lower temperatures will stall plant growth and development when establishing plants
- Allow plants to dry between irrigation once plant is established
- When planting, cover the crown with soil
- Finish under high light



Average Time (from bare root)		Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
10 to 12 wks				
(15 cm) 1 gallon	Medium size division			
(20 cm) 2 gallon	Large division with multiple eyes			



- Cool, wet weather may bring on Fusarium or Rhizoctonia. There are also a few leaf spot diseases which may develop under damp, low light conditions
- Establish with evenly moist soil, then allow soil to dry between irrigations when roots are develop
- Scout for Aphids, Spider Mites and Thrips on regular basis along with Leaf Minors.

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID,DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	6.0 to 6.5	1.0 to 1.2	ADT 65° F (18° C)	feed 100 to 150 ppm		Grow under high light and cool temperatures	Spray fungicide after transplant	Establish roots under warmer temperatures
Week 6 to 12	6.0 to 6.5	1.0 to 1.5	ADT 65° F (18° C)	feed 150 to 200 ppm				Finish under cooler temperatures

FINISHING TIPS

KIRA™

Heuchera hybrida



- First-Year Flowering with no bulking or vernalization requirements
- Beautiful mounding habit Foliage
- Excellent heat and drought tolerance
- Works well in quarts (12cm) and combinations
- Available as URC, RC and Callus



Spring



25 cm
8 in



30 cm
12 in



4-9



Mounded



12-18 cm
Qt, Gal+



Landscape



KIRA™ Collection

1st
YEAR
Flowering



Kira™ Evergreen Forest



Kira™ Green Tea



Kira™ Jersey



Kira™ Arizona



Kira™ Purple Rain
Forest Imp.



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Suggested	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 18° - 20° C (65° - 68° F)		Weeks 3-5 100 ppm N	Day of sticking & Week 2



- **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible



- Heuchera & Heucherella prefer humidity from tenting vs misting foliage and soil. Rooting hormone and drier soil conditions are more conducive to uniform rooting.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.7 to 6.5	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist			Day of sticking	
Week 2	5.7 to 6.5	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.7 to 6.5	.80 to .90	Cool to 20° C (68° F)	Feed 100 ppm				
Week 4	5.7 to 6.5	.80 to .90	18° - 20° C (65° - 68° F)	Feed 100 ppm N				
Week 5	5.7 to 6.5	.80 to .90	18° - 20° C (65° - 68° F)	Feed 100 ppm N		Should not be required		

*Heuchera hybrida*

- Some shade will be required during periods of high light production
- Allow soil to dry between irrigations
- No pinch or PGR should be required

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 10 wks	Average Day	Pinch –not required	100 - 150 ppm N	
12 cm (Quart) 1 ppp	18° - 20° C (65° - 68° F)			
10 to 12 wks			Soil EC 0.8 - 1.0 pH 5.7 to 6.5	
15 cm (1 gallon) 1 ppp				

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.7 to 6.5	0.8 to 1.0	18° - 20° C (65° - 68° F)	feed 100 to 150 ppm			Drench fungicide after transplant	•Control of Pythium & Phytophthora
Week 6 to 13	5.7 to 6.5	0.8 to 1.0	18° - 20° C (65° - 68° F)	feed 100 to 150 ppm				

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTROBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB



- A reduction in light will be needed for summer production
- Scout for Aphids, Mites and Whitefly
- Allow soil to dry between irrigations
- Drench after transplant for Botrytis and Pythium / Phytophthora

FIRST FLUSH™

Iberis sempervirens

1st
YEAR
Flowering

- First-year flowering with no bulking or vernalization requirements
- Abundance of flowers
- Takes the heat which extends the selling season for this typically early spring season crop
- Benefits from 14 days of cool temperatures (10C/50F or less) for uniform flowering
- Cold tolerance - suitable for early season programs



Spring



6-8 in
15-20 cm



12-14 in
30-35 cm



Mounded



10-18
Gal+



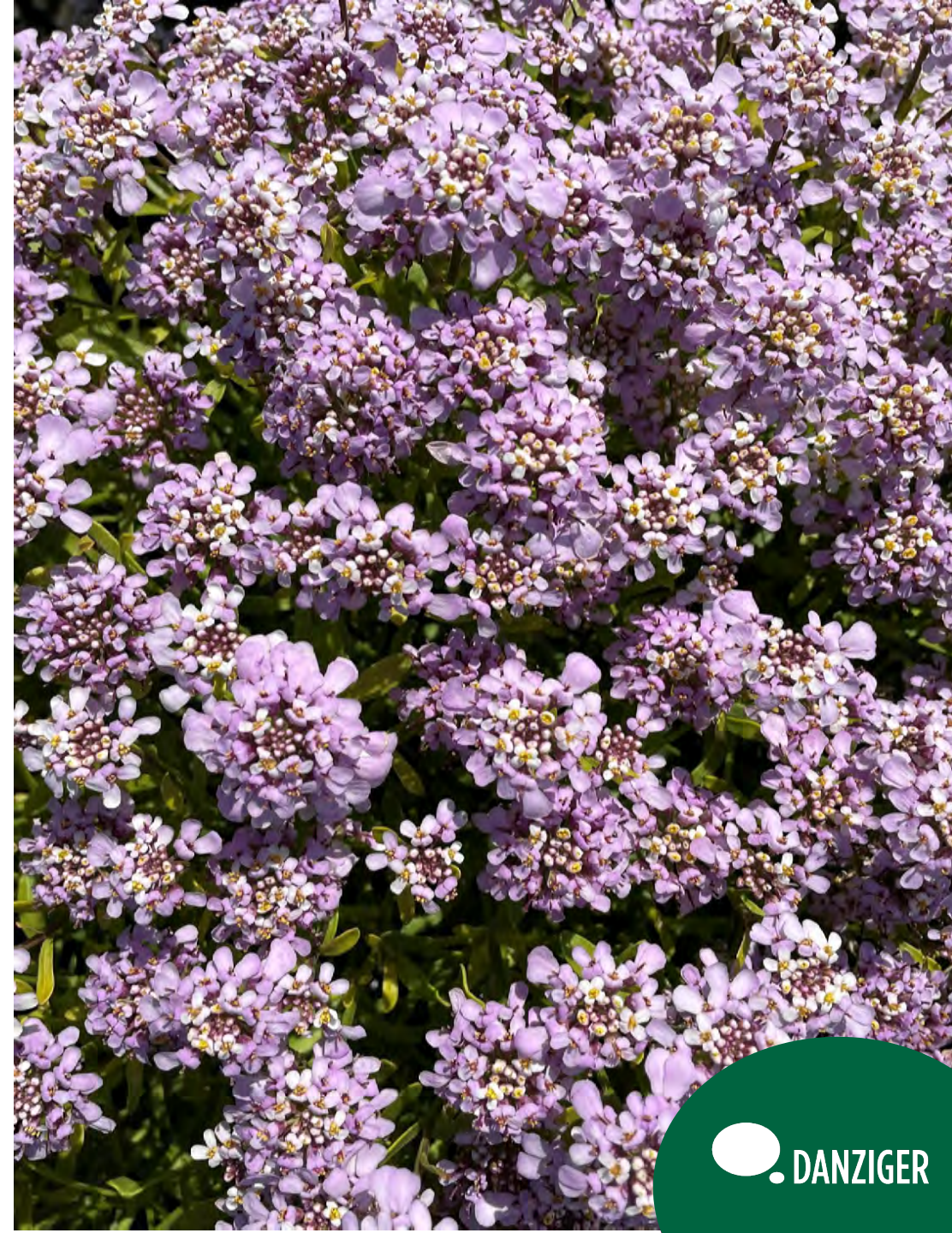
Landscape



Hanging
basket



4-9



FIRST FLUSH™ series

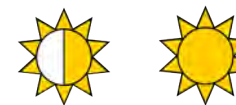
1st
YEAR
Flowering



FIRST FLUSH™ GRACE



FIRST FLUSH™ LAVENDER



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 72°/74°F (22°/23°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 65° - 68° F (18° - 20° C)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2



- **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible



- K - IBA spray application will hasten and even rooting. It is best to root under high humidity and reduce misting application. Allow soil to become moderately dry. Pinch is recommended week 4 or at transplant. Daminozide spray application at 1500 to 2500 if needed.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 / 6.0	0.80	72°/74°F (22°/23°C)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	72°/74°F (22°/23°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.6 to 6.0	.90 to 1.0	Cool to 68°-70° (20° - 21° C)	Feed 100 ppm to 150 ppm				
Week 4	5.6 to 6.0	.90 to 1.0	68°-70° (20° - 21° C)	Feed 100 to 150 ppm				Pinch optional
Week 5	5.6 to 6.0	1.0 to 1.2	65° - 68° F (18° - 20° C)	Feed 100 to 150 ppm		Daminozide as needed		



- Evenly moist soil conditions is best
- High quality plants are finished with high light and cool temperatures
- May require two pinches, depending on production schedule for larger containers

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 9 wks	Average Day	Pinch Week 4 or day of transplant	100 - 150 ppm N	Daminozide spray application @ 2000 – 3750 ppm Paclobutrazol at 2 ppm drench
15 cm (1 gallon)	65°F (18°C)			
9 to 10 wks			Soil EC 1.0 - 1.2	
20 cm (2 gallon)			pH 5.6 to 6.0	

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.6 to 6.0	1.0 to 1.2	65°F (18°C)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Rhizoctonia
Week 7 to 13	5.6 to 6.0	1.0 to 1.2	65°F (18°C)	feed 100 to 150 ppm		Paclobutrazol 1 Drench at 2 ppm		Paclobutrazol 2 ppm drench when plants reach 85% of desired size



- PGR - Spray Daminozide at 2000 to 3750 ppm on finished plants early in crop schedule / Paclobutrazol drench application at 2 ppm for finishing if required
- Maintain good airflow and allow plants to dry before nightfall. Do not keep consistently wet or root rot problems may develop. The first signal of damp conditions would be yellowing of foliage and weak growth
- Scout for Aphids and Thrips
- Drench after transplant for Rhizoctonia and Pythium / Phytophthora

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

Lami™ Dark Purple

Lamium maculatum



- First-year flowering with no vernalization or bulking required
- Early abundant flowering



Summer



6 in
15cm



12 in
25 cm



Semi-
Trailing



12-15
Qt, Gal



Landscape



Hanging
basket



3-8



Lami™ Dark Purple

Lamium maculatum

For additional information and availability:

[Lami™ Dark Purple](#) 



Stick on priority – Number 2 out of 4 categories

PROPAGATION TIPS

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 70°-72° F (21° - 22°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 65° - 68° (18° - 20° C)		Weeks 3-5 100 to 125 ppm N	Day of sticking & Week 2



- **Irrigation specification** - Remove from mist as soon as possible. Scout specifically for Botrytis



- Daminozide at 1500 – 2000 ppm week 3 and/or 5 as required
- Pinch at transplant

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	70°-72° F (21° - 22°C)	50 ppm N in mist			Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	70°-72° F (21° - 22°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 65° - 68° (18° - 20° C)	Feed 100 ppm to 125 ppm N		Daminozide as needed		
Week 4	5.8 to 6.2	.90 to 1.0	65° - 68° (18° - 20° C)	feed 100 to 125 ppm N				
Week 5	5.8 to 6.2	.90 to 1.0	65° - 68° (18° - 20° C)	feed 100 to 125 ppm N	None required	Daminozide as needed		Pinch at transplant

Lami™ Dark Purple

Lamium maculatum

- Pinch at transplant or soon after transplant
- Moderate moist soils will avoid marginal browning of leaves from drying
- Avoid bright direct light
- Cool temperature finishing for best quality

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
5 to 7 wks	Average Day	Pinch –Required	150 - 200 ppm N	To control stretch if finishing warm
(12 cm) 5” pot 1 ppp	68° to 72°F (20° to 22°C) early in crop			
6 to 8 wks	65° - 68° (18° - 20° C) finishing temperatures		Soil EC 0.9 to 1.0 pH 5.8 to 6.2	
(15 cm) 6 ½” 1 ppp				



- PGR - Spray Daminozide at 1500 to 2500 ppm early on finished plants
- Maintain good airflow and allow plants to dry before nightfall
- Scout for Aphid and Slugs/Snail on regular basis

For additional information and availability:

[Lami™ Dark Purple](#)



Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.8 to 6.2	0.9 to 1.0	65° - 68° (18° - 20° C)	feed 150 to 200 ppm		Daminozide as needed	Spray fungicide after transplant	
Week 6 to 10	5.8 to 6.2	0.9 to 1.0	65° - 68° (18° - 20° C)	feed 150 to 200 ppm				

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTROBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

LAYLA™

1st
YEAR
Flowering

Lavandula angustifolia

- First-year flowering with no bulking or vernalization requirements
- Well branched
- Early to bloom and prolonged flowering spring to fall
- Highly fragrant
- Compact and upright habit, little to no PGR needed
- Provides aromatherapy benefits like stress relief, improved sleep, and relaxation



Upright



Spring
- Fall



12-15 cm
Qt, Gal



Landscape



30-35 cm
12-14 in



35-40 cm
14-16 in



Zone 6-9



Pollinator
Friendly



The LAYLA™ series

1st
YEAR
Flowering

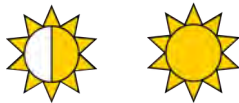


LAYLA™ Presto Blue



LAYLA™ Blue

Lavandula angustifolia



Stick on priority – Number 1 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Suggested	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 18° - 20° C (65° - 68° F)		Weeks 3-5 100 to 125 ppm N	Day of sticking & Week 2



Irrigation specification – Spray with adjuvant the day of sticking/Remove from mist as soon as possible. It is best to root under high humidity and reduce misting application. Tenting is a great alternative to misting, allowing for drier foliage during propagation. Possibly utilize callused cuttings to shorten propagation schedule.



K IBA spray application or IBA dip will hasten and even off rooting. Pinch is recommended week 4 or at transplant.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.0	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.80 to .90	Cool to 20° - 21°C (68°-70° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	.80 to .90	20° - 21°C (68°-70° F)	Feed 100 to 150 ppm				
Week 5	5.8 to 6.2	.80 to .90	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm				Pinch recommended

Lavandula angustifolia

- Maintain evenly moist soil conditions
- Facultative long day plant / long days will hasten flower response
- High light levels and cool temperatures are best for finishing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
10 to 11 wks	Average Day	Pinch – Suggested day of transplant and 2 nd pinch might be required	100 - 150 ppm N	None required
10 cm (Quart)	18°C /65° F			
11 to 12 wks	1 plant per pot		Soil EC 0.8 - 1.0	
15 cm (1 gallon)			pH 5.8 to 6.2	

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.8 to 6.2	.08 to 1.0	18° - 20° C (65° - 68° F)	feed 100 to 150 ppm			Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 13	5.8 to 6.2	0.8 to 1.0	16° - 18° C (61° - 65° F)	feed 100 to 150 ppm				Spray fungicide application to control Botrytis during finishing

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID,DICHLORVOS
	Thrips	METHIOCARB,ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTROBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB



- PGR – None required when growing in warmer period, it might be required – Spray Daminozide at 2000 to 2500 ppm .
- Maintain good airflow and allow plants to dry before nightfall
- Scout for Aphids, Leaf Minors, Mites and Thrips
- Drench after transplant for Botrytis and Pythium / Phytophthora

LUCILLE™

1st
YEAR
Flowering

Leucanthemum x superbum

- First-year flowering with no bulking or vernalization requirements
- Little to no photoperiodic requirement
- Absolutely no benefit to bulking which allows flexibility in scheduling with no difference in finished product quality when compared to fall production schedule
- Profusion of large single white flowers from early spring through fall



Upright



Spring



12-15 cm
Qt, Gal,
Patio Pot



Landscape



12cm
12in



25 cm
10 in



Zone 5-9



The LUCILLE™ series

1st
YEAR
Flowering



LUCILLE™ Grace



LUCILLE™ White



LUCILLE™ Chic



Leucanthemum x superbum



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Suggested	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 18° - 20° C (65° - 68° F)		Weeks 3-5 100 to 125 ppm N	Day of sticking & Week 2



- **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible.



- K IBA spray application will hasten and even rooting. Do not over saturate media during propagation.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.0	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.80 to .90	Cool to 20 / 21 C	Feed 100 ppm				
Week 4	5.8 to 6.2	.80 to 1.2	20 to 21 C	Feed 100 ppm				
Week 5	5.8 to 6.2	.80 to 1.2	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm		Damino zide as needed		Pinch is not required



Leucanthemum x superbum

- Maintain soil evenly moisture
- Facultative Long Day flowering response
- High light levels best for finishing

LUCILLE™ Chic – most compact & earliest to flower

LUCILLE™ White – medium vigor & medium response to flower

LUCILLE™ Grace – largest vigor & later to flower

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
9 to 10 wks	Average Day	Pinch –None required	150 to 200 ppm	Daminozide spray application @ 2500 – 3750 ppm
15 cm (1 gallon)	18° - 20° C (65° - 68° F)			
10 to 11 wks	1 plant per pot		Soil EC 1.0 - 1.5 pH 5.8 to 6.2	
20 cm (2 gallon)				

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.8 to 6.2	1.0 to 1.2	18° - 20° C (65° - 68° F)	feed 150 to 200 ppm			Drench fungicide after transplant	
Week 6 to 12	5.8 to 6.2	1.0 to 1.5	18° - 20° C (65° - 68° F)	feed 150 to 200 ppm		Daminozide as needed	Control of Pythium & Phytophthora	



- PGR - Spray Uniconazole 5 to 7 ppm early in crop
- Paclobutrazol drench application at 0.5 ppm for finishing
- Spray broad spectrum fungicide after transplant
- Scout for Thrip on regular basis
- Do not spray Abamectin (Avid) on Leucanthemum - test spray any pesticide

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTROBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

American Gold Rush™

Rudbeckia hybrid



- First-year flowering, bulking required
- Deep-yellow blooms and a dark brown center cone
- Long-lasting and prolific flowering
- Heat tolerance
- All American Selections Award Winner
- Available as URC



Upright/
Mounded



Late
Summer -
Fall



15+ cm
Gal+



Landscape



60-66 cm
24-26 in



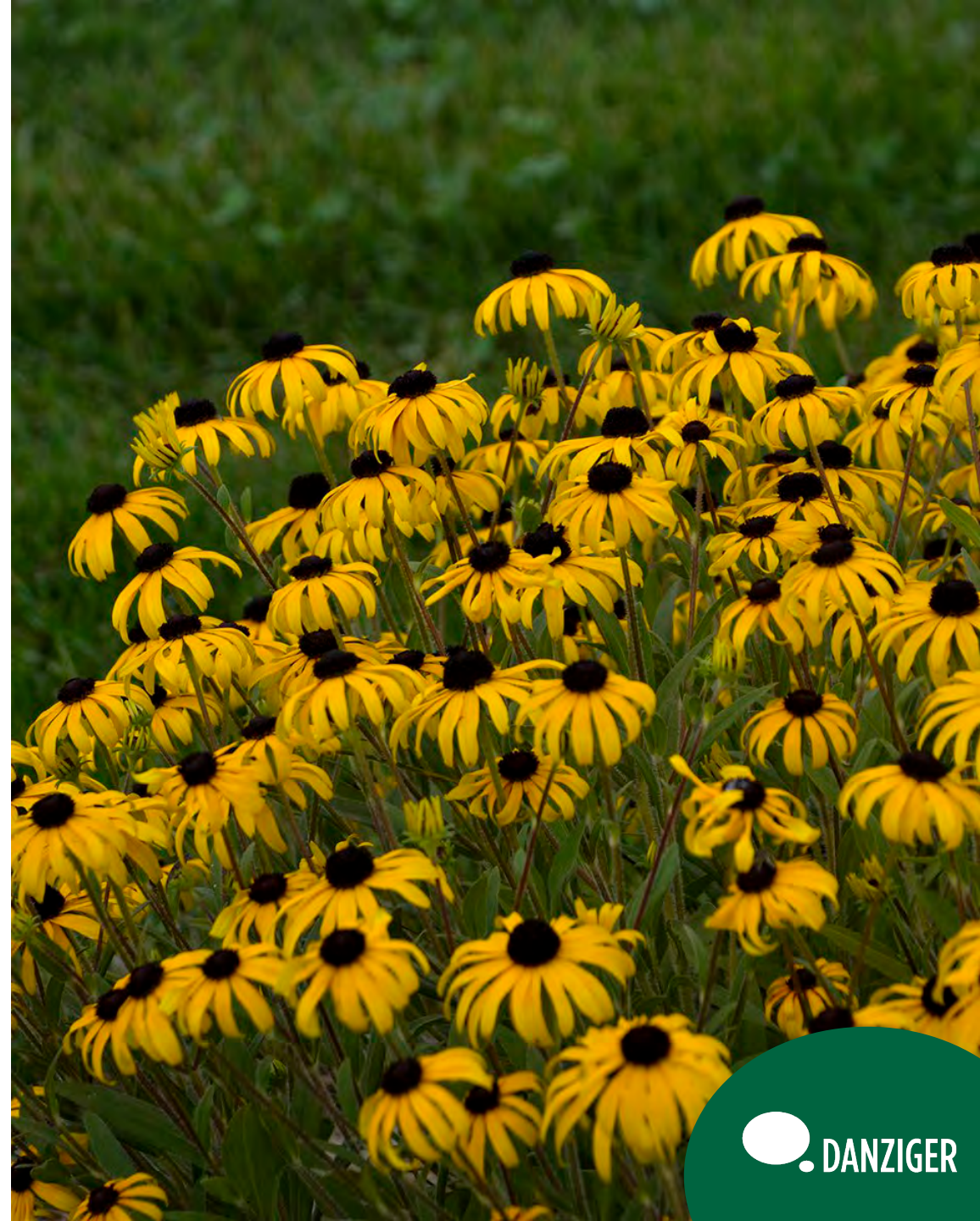
90-100 cm
36-40 in



Zone 4-9



Pollinator
Friendly



American Gold Rush™ PP28498 CPBRAf

Rudbeckia hybrid

For additional information and availability: [American Gold Rush™](#)



Stick on priority – Number 2 out of 4 categories

Extend the day or night interruption lighting to 12 hours to continue plant growth during short day conditions

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 20° - 21° C (68° - 70° F)		Weeks 3-5 100-150 ppm N	Day of sticking & Week 2



– Spray **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible



- Spray adjuvant at sticking
- K-IBA spray application will hasten and even rooting response. American Gold Rush™ is long day flowering with the natural flowering response being late June / early July (obligatory long day plant).

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.0	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Required 12 hr daylength		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 20° - 21° C (68° - 70° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	.90 to 1.0	20° - 21° C (68° - 70° F)	Feed 100 to 150 ppm				
Week 5	5.8 to 6.2	.90 to 1.0	20° - 21° C (68° - 70° F)	Feed 100 to 150 ppm		Daminozide if needed		

American Gold Rush™ PP28498 CPBRAf

Rudbeckia hybrid

For additional information and availability:

[American Gold Rush™](#)



- No pinch should be needed
- Naturally compact plant habit
- Spray for bacterial leaf blights

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 10 wks	Average Day	Pinch not required/ extend daylength to 12 hours for continued growth	100 - 150 ppm N	Daminozide spray application @ 2000–2500 ppm if needed under low light conditions
15 cm (1 gallon) 1 ppp	68° to 70° F (20° to 21°C)		Soil EC 1.0– 1.5 pH 5.8 to 6.2	
8 to 10 wks	3 plants per container			
24 cm (10 inch)			100 - 200 ppm N	Daminozide spray application @ 2000–2500 ppm if needed under low light conditions

- Long Day Flowering Response Natural flowering time is weeks 26 - 28
- PGR - Spray Daminozide at 2000 to 2500 ppm on finished plants early in crop schedule if needed
- Maintain good airflow and allow plants to dry before nightfall/spray for bacterial leaf blights
- Drench after transplant for Rhizoctonia and Pythium / Phytophthora

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.8 to 6.2	0.9 to 1.0	68° to 70° F (20° to 21°C)	feed 100 to 150 ppm			Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 13	5.8 to 6.2	1.0 to 1.5	68° to 70° F (20° to 21°C)	feed 150 to 200 ppm		Daminozide as needed	Spray fungicide in finishing protocols	Control of Bacterial Leaf Blights

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTROBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

Early Bird Gold™

Rudbeckia hybrid



- First-year flowering with no vernalization or bulking required
- Deep-yellow blooms and a dark brown center cone
- **Key advantage – flowers regardless of day length**
- Long-lasting and prolific flowering
- Heat tolerance
- Available as URC



Upright/
Mounded



Spring
Summer
Fall



15+ cm
Gal+



Landscape



60-66 cm
24-26 in



90-100 cm
36-40 in



Zone 4-9



Pollinator
Friendly



Early Bird Gold™

Rudbeckia hybrid

For additional information and availability:

[Early Bird Gold™](#)



Stick on priority – Number 2 out of 4 categories

Extended daylength is not required. However, long days result in quicker flowering and better branching

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 20° - 21° C (68° - 70° F)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2



- Spray **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible



- K-IBA spray application is beneficial to hasten rooting, but is not required.
- Early Bird™ is a facultative long day flowering plant. This means long day will result in quicker flowering, but the plants will finish under short days. (facultative long day plant).

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	optional 12 hr daylength		Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 20° - 21° C (68° - 70° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	.90 to 1.0	20° - 21° C (68° - 70° F)	Feed 100 to 150 ppm				
Week 5	5.8 to 6.2	.90 to 1.0	20° - 21° C (68° - 70° F)	Feed 100 to 150 ppm		Daminozide if needed		

Early Bird Gold™

Rudbeckia hybrid

For additional information and availability:

[Early Bird Gold™](#)



- Long days are not required for flowering
- Spray for bacterial leaf blights

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 10 wks	Average Day	Pinch is suggested 4 weeks after sticking.	100 - 150 ppm N	Daminozide spray application @ 2000 – 2500 ppm if needed under low light conditions
15 cm (1 gallon) 1 ppp	68° to 70° F (20° to 21°C)		Soil EC 1.0– 1.5 pH 5.8 to 6.2	
3 plants per pot suggested for size greater than 15cm (1 gallon)		Optional to extend daylength to 12 hours for faster flowering and increased branching	150-200 ppm N	Daminozide spray application @ 2000 – 2500 ppm if needed under low light conditions

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.2	0.8 to 1.0	68° to 70° F (20° to 21°C)	feed 100 to 150 ppm			Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 13	5.8 to 6.2	1.0 to 1.5	68° to 70° F (20° to 21°C)	feed 150 to 200 ppm		Daminozide as needed	Spray fungicide in finishing protocols	Control of Bacterial Leaf Blights

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB



- Under short day conditions and average daily temperature of 68F (20C) plants finish approximately 16 weeks after stick. Daylength over 12 hours results in flowering 2 weeks faster than short days.
- PGR - Spray Daminozide at 2000 to 2500 ppm on finished plants early in crop schedule if needed
- Maintain good airflow and allow plants to dry before nightfall/spray for bacterial leaf blights
- Drench after transplant for Rhizoctonia and Pythium / Phytophthora

APEX™

Salvia nemorosa



- First-year flowering with no bulking or vernalization requirements
- Early and uniform bloom
- Reblooms for color all summer long
- Strong radial branching
- Performs well in heat and humidity
- Reblooms for color all summer long



Upright



Spring



12-15 cm
Qt, Gal,
Patio Pot



Landscape



30 cm
12 in



35 cm
14 in



Zone 4-9



APEX™ Blue

The APEX™ Series



APEX™ Pink



APEX™ Blue



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 22° - 23°C (72°-74° F)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 20° - 21° C (68° - 70° F)		Weeks 3-4 100 to 125 ppm N	Day of sticking & Week 2



- Irrigation specification – Spray with adjuvant the day of sticking/Remove from mist as soon as possible



- Salvia nemorosa APEX™ are day neutral. K-IBA spray application will hasten and even rooting response. Soft pinch will increase branching but is not necessary.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	22° - 23°C (72°-74° F)	50 ppm N in mist			Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	22° - 23°C (72°-74° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 20° - 21° C (68° - 70° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	1.0 to 1.2	20° - 21° C (68° - 70° F)	feed 100 to 150 ppm	None required	Daminozide as needed		Spray at 1500 to 2500 ppm Daminozide

APEX™

Salvia nemorosa

For additional information and availability:

APEX™



- Cool finishing temperatures will increase quality and longevity of flowers
- Apex™ will rebloom throughout the summer without cutting back plants

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 9 wks	Average Day	Pinch – Optional	150 - 200 ppm N	Spray at 1500 to 2500 ppm Daminozide
10 cm (quart) 1 ppp	16° to 18°C (61°-65° F)		Soil EC 1.2 – 1.5 pH 5.8 to 6.3	
9 to 11				
15 cm (1 gallon) 1 ppp				

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 5	5.8 to 6.3	1.0 to 1.2	16° to 18°C (61°-65° F)	feed 100 to 150 ppm			Drench fungicide after transplant	Control of Pythium & Botrytis
Week 6 to 12	5.8 to 6.3	1.2 to 1.5	16° to 18°C (61°-65° F)	feed 150 to 200 ppm				

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID,DICHLORVOS
	Thrips	METHIOCARB,ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTROBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB



- Cool temperatures during finishing will develop high quality plants
- Maintain good airflow and allow plants to dry before nightfall.
- Scout for Aphids, Spider Mites and Whiteflies
- Drench after transplant for Botrytis and Pythium / Phytophthora

Salvia Collection

Salvia nemorosa



- First year flowering, no vernalization or bulking required
- Early and uniform bloom
- Re-blooms for color all summer long
- Strong radial branching



Upright



45-50 cm
18-20 in



50-55 cm
20-22 in



Zone
4-9



15-18
Gal+



Landscape



Heat
tolerant



The SALVIA™ Collection

1st
YEAR
Flowering



Dark Matter™



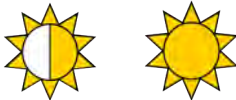
Pink Nebula™

Dark Matter™ & Pink Nebula™

Salvia nemorosa

For additional information and availability:

[Dark Matter™ & Pink Nebula™](#)



Stick on priority – umber 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 22° - 23°C (72°-74° F)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 20° - 21° C (68° - 70° F)		Weeks 3-4 100 to 125 ppm N	Day of sticking & Week 2



Irrigation specification – Spray with adjuvant the day of sticking/Remove from mist as soon as possible.



Salvia nemorosa Dark Matter™ & Pink Nebula™ are day neutral. K-IBA spray application will hasten and even rooting response. Pinch in liner stage or at transplant to increase branching

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	22° - 23°C (72°-74° F)	50 ppm N in mist	None required		Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	22° - 23°C (72°-74° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 20° - 21° C (68° - 70° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	1.0 to 1.2	20° - 21° C (68° - 70° F)	feed 100 to 150 ppm		Daminozide as needed		Spray at 1500 to 2500 ppm Daminozide

Dark Matter™ & Pink Nebula™

Salvia nemorosa

For additional information and availability:

Dark Matter™ & Pink Nebula™

- Cool finishing temperatures will increase quality and longevity of flowers
- Dark Matter™ & Pink Nebula™ may require additional PGR applications for quality finishing/it is a larger growing variety.

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 9 wks	Average Day	Pinch – suggested	150 - 200 ppm N	Daminozide spray application @ 2000 – 3750 ppm Paclobutrazol 1 to 2 ppm drench
10 cm (quart) 1 ppp	16° to 18°C (61°-65° F)			
9 to 11			Soil EC 1.2 – 1.5 pH 5.8 to 6.3	
15 cm (1 gallon) 1 ppp				



- Cool temperatures during finishing will develop high quality plants
- Maintain good airflow and allow plants to dry before nightfall.
- Scout for Aphids, Spider Mites and Whiteflies
- Drench after transplant for Botrytis and Pythium / Phytophthora

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 5	5.8 to 6.3	1.0 to 1.2	16° to 18°C (61°-65° F)	feed 100 to 150 ppm			Drench fungicide after transplant	Control of Pythium & Botrytis
Week 6 to 12	5.8 to 6.3	1.2 to 1.5	16° to 18°C (61°-65° F)	feed 150 to 200 ppm		May require additional applications		Daminozide spray application @ 2000 – 3750 ppm Paclobutrazol 1 to 2 ppm drench

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID,DICHLORVOS
	Thrips	METHIOCARB,ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTROBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

SALLYROSA™ April Night

Salvia nemorosa

- First-Year flowering with no bulking or vernalization requirements
- Early and uniform bloom
- Attractive foliage
- Well branched, strong and radial body
- Treat just like an annual



Spring /
Summer
Flowering



30 - 41 cm
12 - 14 in



36 - 41 cm
14 - 16 in



Zone
4-9

1st
YEAR
Flowering



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 20° - 21° C (68° - 70° F)		Weeks 3-4 100 to 125 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 / 6.2	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist			Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 20° - 21° C (68° - 70° F)	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 4	5.8 to 6.2	1.0 to 1.2	20° - 21° C (68°- 70° F)	feed 100 to 150 ppm	None required	Daminozide as needed		Pinch - Recommended
Week 5	5.8 / 6.2	0.80	20° - 21° C (68°- 70° F)	50 ppm N in mist				

PROPAGATION TIPS



- **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible
- **Salvia nemorosa Sallyrosa™** are day neutral. K-IBA spray application will hasten and even rooting response. Pinch in liner stage or at transplant to increase branching.





Salvia nemorosa

Salvia nemorosa

- Cool finishing temperatures will increase quality and longevity of flowers

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 9 wks	Average Day	Pinch –Optional	150 - 200 ppm N	Daminozide spray application @ 2000 – 3750 ppm Paclobutrazol 1 to 2 ppm drench
10 cm (quart) 1 ppp	(16° to 18°C)			
9 to 11			Soil EC 1.2 – 1.5 pH 5.8 to 6.3	
15 cm (1 gallon) 1 ppp				

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.8 to 6.3	1.0 to 1.2	16° to 18°C	feed 100 to 150 ppm			Drench fungicide after transplant	Control of Pythium & Botrytis
Week 6 to 13	5.8 to 6.3	1.2 to 1.5	16° to 18°C	feed 150 to 200 ppm		Dark Matter may require additional applications		Daminozide spray application @ 2000 – 3750 ppm Paclobutrazol 1 to 2 ppm drench



- PGR - Spray Uniconazole 5 to 7 ppm early in crop
- Paclobutrazol drench application at 0.5 ppm for finishing
- Spray broad spectrum fungicide after transplant
- Scout for Thrip on regular basis

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

Ronica™

Veronica spicata



- First-year flowering with no bulking or vernalization requirements
- Compact and highly uniform plants
- Excellent flower canopy without vernalization



Later Spring



14 in
35 cm



16 in
40 cm



Upright



12-15



Landscape



4-9



RONICA™ series



RONICA™ BLUE



RONICA™ FUCHSIA



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 20° - 21° C (68° - 70° F)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2



- **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible



- K-IBA spray application will hasten and even rooting response. Veronica Ronica™ are long day flowering with the natural flowering response being June (facultative long day plant).

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 20° - 21° C (68° - 70° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	.90 to 1.0	20° - 21° C (68° - 70° F)	Feed 100 to 150 ppm		Daminozide as needed		
Week 5	5.8 to 6.2	1.0 to 1.2	20° - 21° C (68° - 70° F)	Feed 100 to 150 ppm		Daminozide as needed		



- Low fertility will reduce plant size and hasten flowering
- Allow soil to dry between irrigations

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
9 to 10 wks	Average Day	Pinch –Suggested day of transplan	100 - 150 ppm N	Daminozide spray application @ 2000 – 3750 ppm Paclobutrazol 1 to 2 ppm drench
15 cm (1 gallon) 1 ppp	20° - 21° C (68° - 70° F)			
11 to 12 wks			Soil EC 0.8 - 1.0 pH 5.8 to 6.2	
20 cm (2 gallon) 1 ppp				



- PGR - Spray Daminozide at 2000 to 3750 ppm on finished plants early in crop schedule / Paclobutrazol drench application at 1 to 2 ppm for finishing if required
- Maintain good airflow and allow plants to dry before nightfall/spray for Powdery Mildew
- Scout for Aphids, Mites and Whiteflies
- Drench after transplant for Rhizoctonia and Pythium / Phytophthora

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.8 to 6.2	0.8 to 1.0	20° - 21° C (68° - 70° F)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Rhizoctonia
Week 6 to 13	5.8 to 6.2	0.8 to 1.0	20° - 21° C (68° - 70° F)	feed 100 to 150 ppm		Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size